

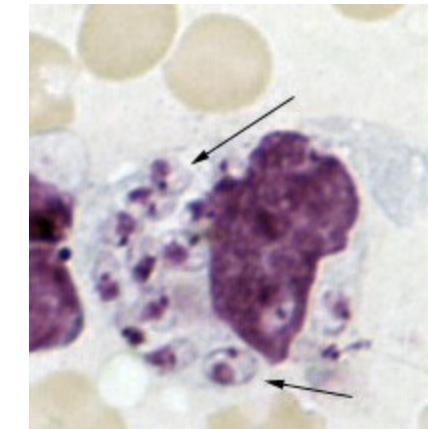


OFFICE OF THE ARMY SURGEON GENERAL

LEISHMANIASIS U.S. ARMY



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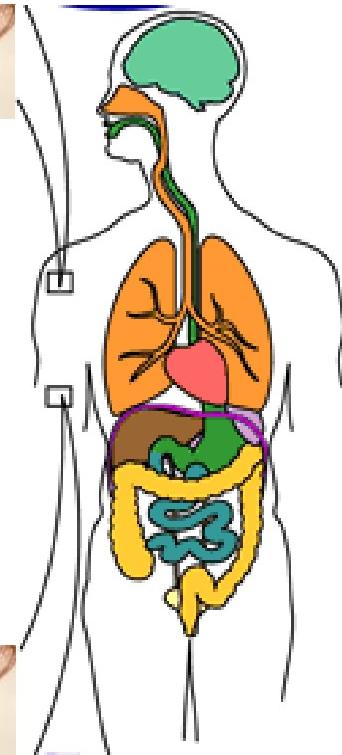


LIFE CYCLE

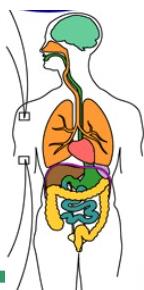
1- Sandfly bites animal and ingests blood infected with *Leishmania*



2- Sandfly bites human and injects *Leishmania* into skin



4- Cycle continues when sandfly bites another human or animal reservoir



3- Another sandfly bites human and ingests blood infected with *Leishmania*



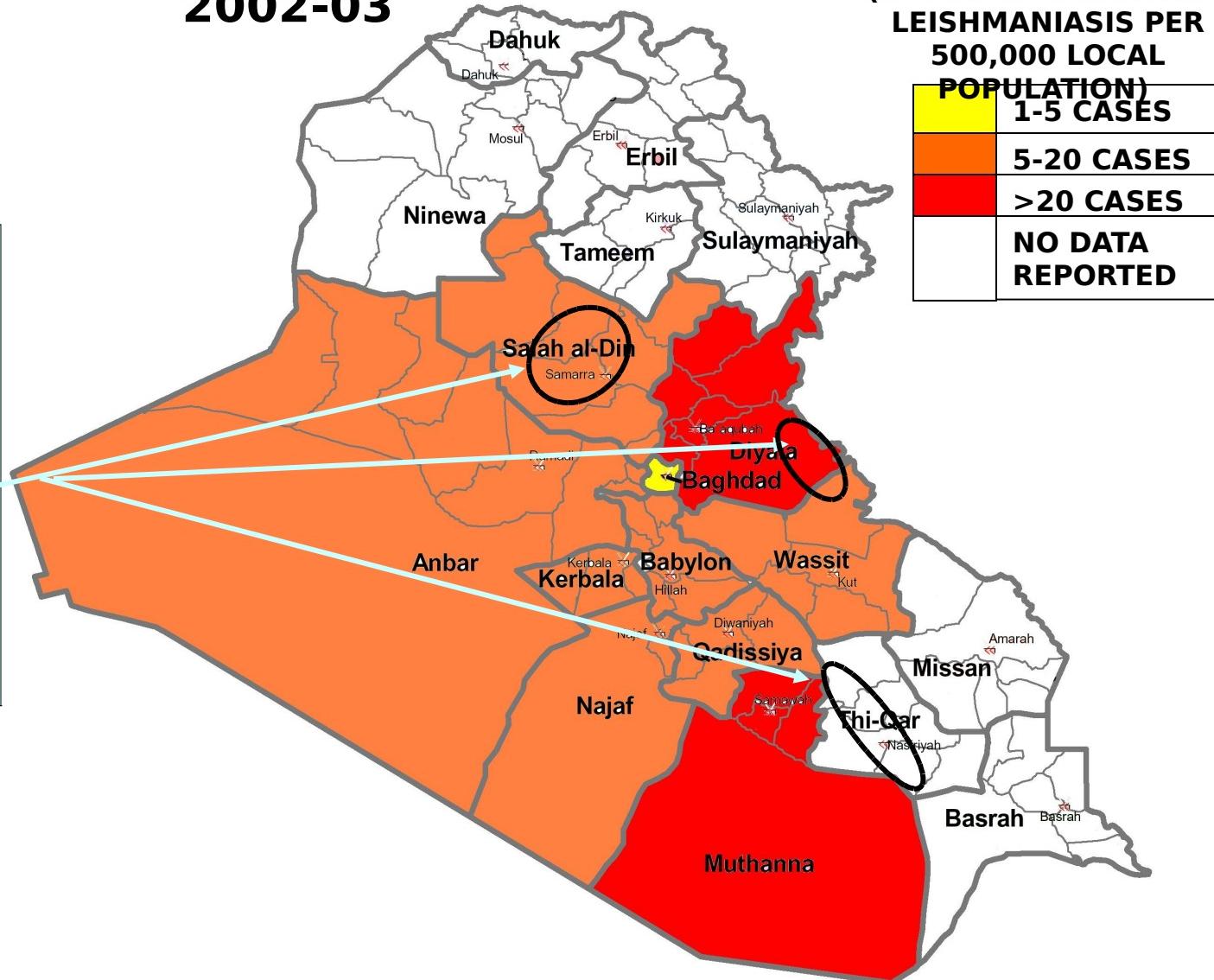
CUTANEOUS LEISHMANIASIS, IRAQ

2002-03

2002 DATA REPORTED BY
IRAQI CENTER FOR DISEASE
CONTROL
(CASES OF CUTANEOUS
LEISHMANIASIS PER
500,000 LOCAL
POPULATION)

1-5 CASES
5-20 CASES
>20 CASES
NO DATA REPORTED

AREAS OF
SUSPECTED
GREATEST
EXPOSURE
FOR US CASES
BASED ON
PATIENT
INTERVIEWS
AND SAND FLY
SURVEILLANC
E STUDIES
MAY-OCT 03





LEISHMANIASIS in OIF/OEF

- Since 1 Jan 03, 618 Military Service members deployed to OIF/OEF have been diagnosed with cutaneous leishmaniasis (CL), and 3 Service members have been diagnosed with visceral leishmaniasis (VL)
- Prevention and treatment of leishmaniasis is a top force health protection priority for the Army
- Major emphasis is placed on educating the individual Soldier on personnel protective measures and identification of symptoms
- Information cards on leishmania
een produced by CHPPM and sent to





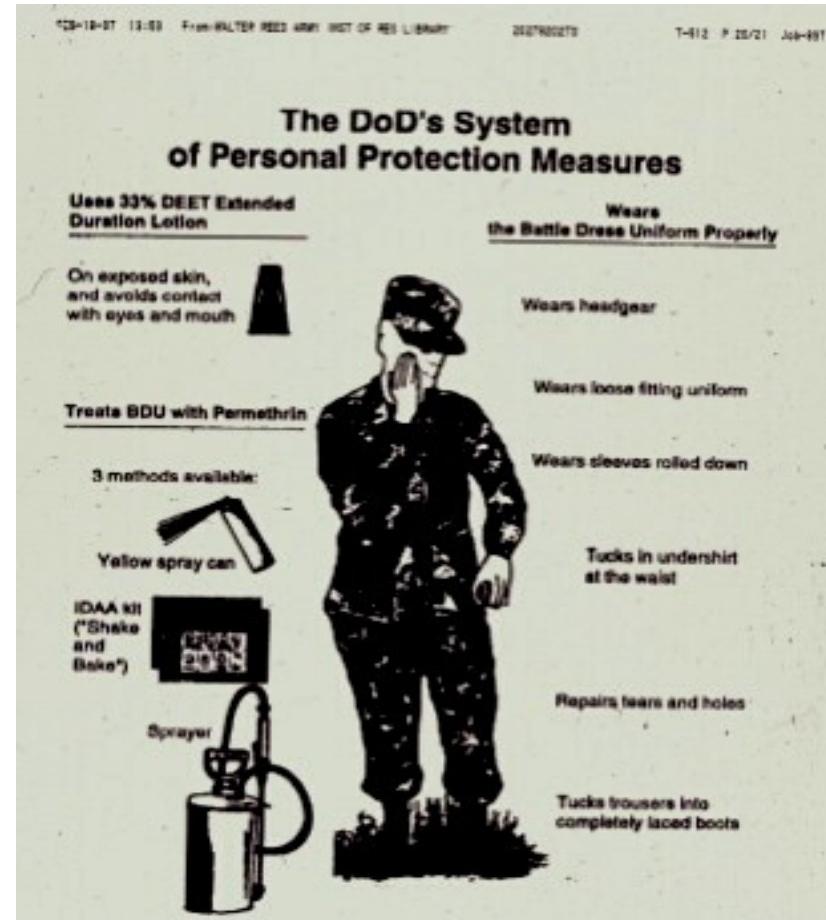
VISCERAL LEISHMANIASIS

- **Visceral leishmaniasis (VL) is a more serious, potentially fatal, internal form of the disease**
- **VL infects the liver, spleen and bone marrow**
- **VL can occur ten days to several years after infection**
- **Treatment of choice for VL is amphotericin B**



PREVENTION OF LEISHMANIASIS

- Suppress the reservoir: **dogs, rats, gerbils, other small mammals and rodents**
- Suppress the vector: **Sandfly**
 - **Critical to preventing disease in stationary troop populations**
- Prevent sandfly bites: **Personal Protective Measures**
 - **Most important at night**
 - **Sleeves down**
 - **Insect repellent w/ DEET**
 - **Permethrin treated uniforms**
 - **Permethrin treated bed nets**





Information Cards

- **Leishmaniasis cards:**
 - **Distributed through Camp Doha: 337,350**
 - **Distributed through Camp Doha and targeted for LTC Weina at Talil: 80,000**
 - **TOTAL: 417,350**
- **Sandfly cards: 197,300**

Source is CHPPM



PERSONAL PROTECTIVE MEASURES

DEET lotion



NSN 6840-01-284-
2002



- Apply a thin coat to EXPOSED skin
- One application lasts up to 12 hours

Permethrin

- Individual Dynamic Absorption Kit (IDA)
- Treatment lasts for over 50 launderings



NSN 6840-01-278-
1336



NSN 6840-01-345-
0237

- Aerosol spray can
- Treatment lasts through 5-6 washes



PERMETHRIN

- **Clothing Insect Repellent, 0.5% permethrin**
- **As of 1 May 04:**
 - **Permethrin in theater: 8,592 boxes (103,104 cans)**
 - **Units requested: 6,467 boxes (77,604 cans)**
- **Source of Supply: Defense Supply Center Philadelphia-- reports sufficient stock for theater issue**
- **NSN 6840-01-278-1336 (12-2 oz cans/box)**



Source data: LOGSA, 1 May 2004



DEET

- Skin Insect Repellent, 33% DEET, 12-2 oz tubes/box
- As of 1 May 04:
 - DEET in theater: 19,457 boxes (233,484 tubes)
 - Units requested: 19,056 boxes (228,672 tubes)
- Source of Supply: Defense Supply Center Richmond-- reports sufficient stock for theater issue
- NSN 6840-01-284-3982

Source: LOGSA on 1 May 2004





INSECT NETTING

- **NSN 7210-00-266-9736**
- **ISSUE:**
 - **Insufficient stock to meet demand**
 - **Demand has surged to 22,000 per month**
 - **Back order is 160,000**
 - **DSCP (Clothing and Textiles) has a mandatory Source: National Industries for the Severely Handicapped :**
 - **Additional commercial source located (NCED)**
 - **Negotiations ongoing to increase capacity**

Source: Helen Cassidy, Item Mgr DSCP



NETTING DETAILS

- **Insect Net Field Type** - NSN: 7210-00-266-9736
- **Stock on Hand** - 0
- **Backorders:** 160,000
- **Average Monthly Demand:** 22,000. Demands have increased dramatically in support of Operation Enduring/Iraqi Freedom
- **Contractor:** National Industries for the Severely Handicapped + newly added commercial source (NCED)
- **Due/In:**
 - April 5,000
 - May 6,000
 - June 7,500
 - July 10,000
- Negotiated additional deliveries from NCED of 30,000 per month from Aug 04 to Sep 05. Also receiving a purchase exception for a qty of 120,000 with deliveries of 30,000 per month from Aug 04 to Nov 04.
- **Backorder Release Date:** Limited deliveries beginning May 04

Source: Theresa Venti Item Mgr DSCP



TREATMENT CENTERS FOR CUTANEOUS LEISHMANIASIS

- CL is a parasitic infection of the skin transmitted by the bite of infective sandflies
- Onset may be delayed for weeks or months
- Prognosis: some spontaneously heal; some cases progress to chronic infection
- Treatment options:
 - IND protocol with antimonial drug (**Pentostam®**)
 - **ThermoMed®**





ROAD AHEAD

- **Memorandum to 1st and 5th CONUSAS**
- **ALARACT on leishmaniasis (Nov 03)**
- **ALARACT on prevention of illnesses (DNBI) in deployment**
- **Change Personnel Policy Guidance, Annex E, Medical and Dental (HQDA)**
- **Change in Deployment List DA 7425**
- **Command Emphasis**



SUMMARY

- Prevention and treatment of leishmaniasis among troops deployed to Southwest Asia is a top force health protection priority for the Army.
- Primary prevention is paramount to ensure readiness in an environment of leishmaniasis exposure.
- Secondary prevention involves methods and procedures for early identification and treatment of leishmaniasis.
- Current treatment options include Pentostam™, ThermoMed™, cryotherapy, fluconazole and amphotericin B.